

**REMARKS/ARGUMENTS**

Claim 1 has been amended. New claims 38-42 have been added. Claims 1-7, 12, 13, and 38-42 are now pending, of which claims 4-7, 12, 13, and 38-42 are withdrawn pursuant to the restriction requirement. Claims 1-3 are directed to Species 1 in Figures 1-3. The drawings have been amended to correct minor informalities. No new matter has been introduced. Sole independent claim 1 is generic.

The drawings are objected to for not showing an inner spring disposed inside the cavity of the tube. Applicants note that an inner spring is shown in a number of drawings, including wire wrap 34 in Fig. 2 (see page 10, line 25), spring 47 in Fig. 4, spring 62 in Fig. 6, spring 144 in Fig. 14, spring 164 in Figs. 16 and 17, spring 186 in Fig. 18, and spring 222 in Fig. 22. Accordingly, Applicants respectfully request withdrawal of the objection.

Claims 1-3 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Morley et al. (6,676,684).

Applicants respectfully submit that independent claim 1 as amended is novel and patentable over Morley et al. because, for instance, Morley et al. does not teach or suggest a wrist member having a flexible tube and an inner spring, the flexible tube including a proximal portion connected to the working end of the elongate shaft and a distal portion connected to the end effector, the inner spring including a proximal portion connected to the working end of the elongate shaft and a distal portion connected to the end effector, the inner spring being disposed inside an interior cavity of the flexible tube, the inner spring having an axis which is parallel to an axis of the flexible tube; and a plurality of actuation cables which are actuatable to bend the flexible tube and the inner spring of the wrist member in pitch rotation and yaw rotation.

In Morley et al., the "wrist-like mechanism 500 includes a **rigid** wrist member 504" (col. 7, line 67 to col. 8, line 1). It does not include a flexible tube. A "torsion tube 550 extends through the center region of the wrist mechanism and shaft 14.1 toward the housing 53" (col. 9, lines 37-39). "The torsion tube 550 may be made of, for example, a multiple layer spring coil tube with layers wound in opposed directions" (col. 9, lines 44-47). The torsion tube does not have a proximal portion connected to the working end of the elongate shaft, but instead

extends through the center region of the shaft toward the housing. Thus, the torsion tube is neither the flexible tube nor the inner spring as recited in claim 1.

For at least the foregoing reasons, claim 1 and claims 2-3 depending therefrom are novel and patentable over Morley et al. Applicants note that Morley et al. further fails to show actuation cables disposed inside a hollow interior of the inner spring, as recited in claim 2.

Claims 1-3 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Madhani et al. (6,786,896).

Applicants respectfully submit that independent claim 1 as amended is novel and patentable over Madhani et al. because, for instance, Madhani et al. does not teach or suggest a wrist member having a flexible tube and an inner spring, the flexible tube including a proximal portion connected to the working end of the elongate shaft and a distal portion connected to the end effector, the inner spring including a proximal portion connected to the working end of the elongate shaft and a distal portion connected to the end effector, the inner spring being disposed inside an interior cavity of the flexible tube, the inner spring having an axis which is parallel to an axis of the flexible tube; and a plurality of actuation cables which are actuatable to bend the flexible tube and the inner spring of the wrist member in pitch rotation and yaw rotation.

In Madhani et al., the "wrist 314 is essentially a roll-pitch-pitch-yaw wrist, with the roll being about axis 3, along the instrument shaft 312" (col. 15, lines 44-46). "The joint axes are labeled in FIG. 2" (col. 15, line 46). "The wrist is a roll-pitch-pitch-yaw write, where the joint 3 is the roll, joints 4 and 5 are the pitch joints, joint 6 is the yaw and joint 7 is an open/close around the yaw axis." Column 16, line 66 to column 17, line 1; see also Fig. 2 and column 15, line 48 to column 16, line 14. The wrist 314 does not include a flexible tube or an inner spring. The text at column 24, lines 10-35 discusses a passive gripper. It has nothing to do with a wrist member having a flexible tube and an inner spring.

For at least the foregoing reasons, claim 1 and claims 2-3 depending therefrom are novel and patentable over Madhani et al. Applicants note that Madhani et al. further fails to show actuation cables disposed inside a hollow interior of the inner spring, as recited in claim 2.

Because claim 1 is generic and allowable, Applicants respectfully request that dependent claims 4-7, 12, 13, and 38-42 be reinstated and allowed.


The concurrently filed IDS contains US 2004/0158268 A1 to Danitz et al. and US 2004/0236316 A1 to Danitz et al. Both references fail to disclose or suggest a wrist member having a flexible tube and an inner spring, the flexible tube including a proximal portion connected to the working end of the elongate shaft and a distal portion connected to the end effector, the inner spring including a proximal portion connected to the working end of the elongate shaft and a distal portion connected to the end effector, the inner spring being disposed inside an interior cavity of the flexible tube, the inner spring having an axis which is parallel to an axis of the flexible tube; and a plurality of actuation cables which are actuatable to bend the flexible tube and the inner spring of the wrist member in pitch rotation and yaw rotation.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,



Chun-Pok Leung  
Reg. No. 41,405

TOWNSEND and TOWNSEND and CREW LLP  
Two Embarcadero Center, Eighth Floor  
San Francisco, California 94111-3834  
Tel: 650-326-2400  
Fax: 415-576-0300  
Attachments  
RL:rl  
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PATENT

**Amendments to the Drawings:**

The attached sheet of drawings includes changes to Fig. 2. This sheet, which includes Figs. 2-3 replaces the original sheet including Fig. 2-3.

Attachment: Replacement Sheet  
Annotated Sheet Showing Changes



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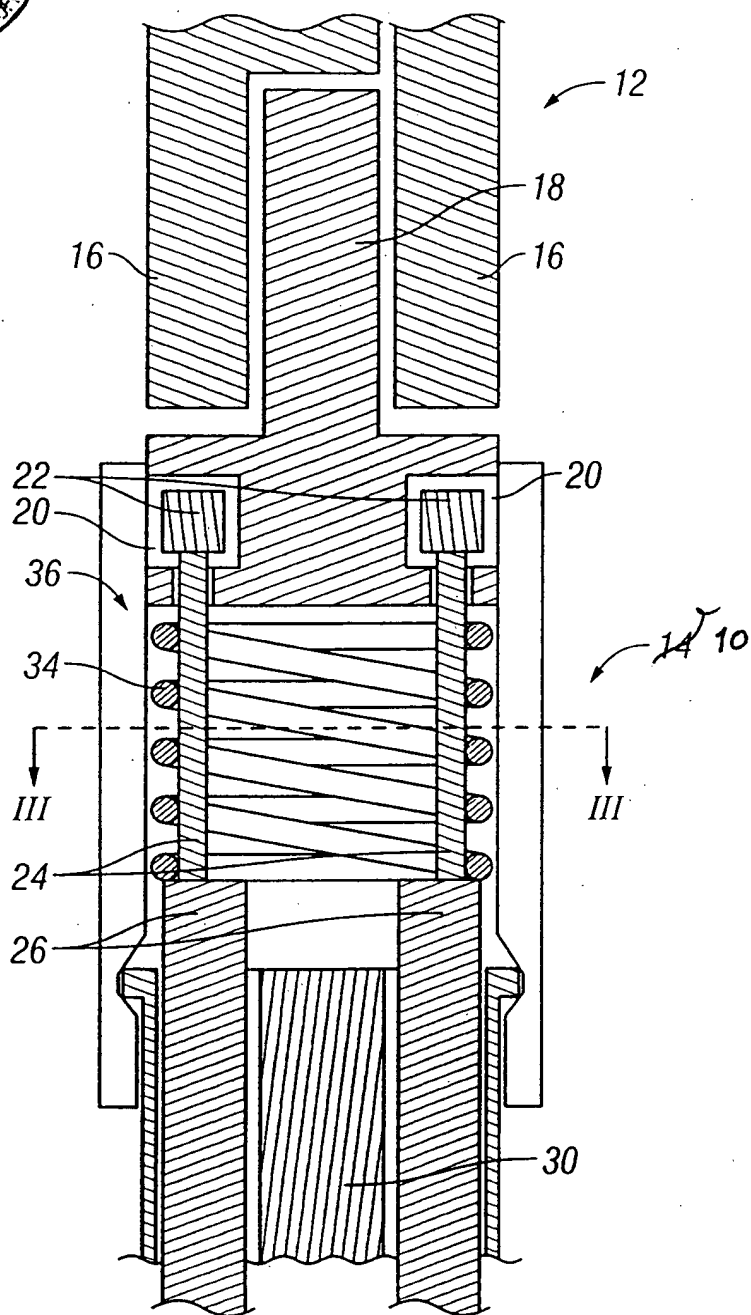


FIG. 2

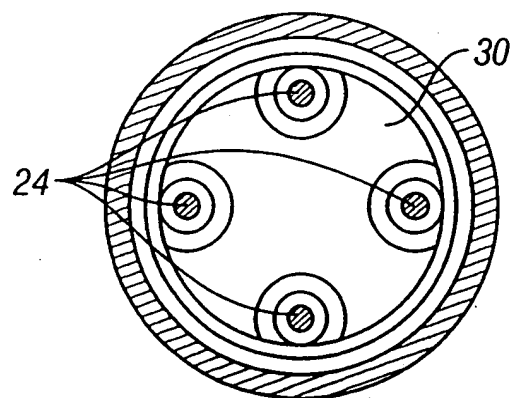


FIG. 3